1 GGCAATGGGT CGAAATTCAT AGAATTTTGT GTGAGGTGCG TAGCGGCTCT 51 GACAGGGTG CTGCGCGGAG ATCTCTGGTC TCAGGTAGGG CGACAATGGA 101 GAGGTGTTAG TTGCCCCCTG TATCGCTCTC TGCGTGGCGC ATTGGGTCAT 151 CCTGCCCGGA CATATGATAT TCCGCTAGAG GATTACTGAT AGTTTCTGCC 201 TGTCGGGCTT GTCGGGCTTG TCGGGCTTGT CGGGCTTGTC GGGCCTGTCC 251 CTCTTGTCCC GCCTGTCCTC ACTTTTTCAC AATCAAAAA TGGGCGAAGC 301 CCTTCTTGTT CTATAGTTCT TATAGTTCAT ACGAAAATTA CACATAATTA 351 TCAATAGCTT ATTCGCTTAA AAGGGAGTAA TTGGGCCGCA AAAGGGAGTA 401 ATTGGGCCGC AAAAGGGAGT AATTGGGCCG CAAAAGGGAG TAATTGGGCC 451 GATATCGGTT GTTTACATGG GGAGGAATCC CCTTAATCAT TTCTCCCCAT 501 GGGAAAGACA ACACAAGTGG CCGCAGACCG GGCCTTCGAC CAGACAAAAA 551 CTGTGCTCCC TGCCGAGGTG GCGAGAGGGG TCTATATGCG CAATCCGCCC 601 CGCCTGCAGG CGCTCAAGCT CATGCATTTA ATGATAGCCA CTGCGGGCGG 651 CCGCATGGCT GATGATGTGC GCCATGAAAT GCGGCTGGCC GACATTCGCG 701 CAATCGACGG CATGAAAAAC CATGACCGTG AGAGCCTGAC CCCGCTGTTC 751 GAGGAGCTAG CCGCTGCGGT GTTGACCCAT GATGACCCTG CAAAGATGAT 801 CGTGACAGTC GGCGGCTTGG TCGATGAGGC GCGAATAGAC TACCGCCAGG 851 AGGCAAGCGG CGAACTCCTA GTGACGTGGA CCTTCCGGAG TACATTCCGT 901 CGTATGGCGG CGGAGTCGAA CCACTGGGCC ATTCTCGACC GTCAAACGGT 951 ATTCCATCTC GGTAGTAAGT ATTCCGTGCT GCTGTTCCAG CACGTCTCTA 1001 GTCTCGCCAA TCTTGATCGG ATGAGCGCGA AAACCTTTAC GGTCCCCGAG 1051 TTGCGGGCGC TCCTTGGAGT GCCCGAGGGA AAGATGGTTC GTTGGAACGA 1101 CGTTAACAGA TTTGCTCTCA AACCTGCACT GGATGAGATC AACCATTTAT 1151 CGCGTCTGAC ATTGACGGCA AAGCCGACCA AGATTGGCCG TAGCGTGGCA 1201 AGTGTGACTA TAGGCTGGGA AGTGAAAGAC GACCCAACCG TCGCCAGGCG 1251 CGAGCTGGCG GGTTCCAAGG TCGGTCGAGA TGCTCGTCGC AGAGGGGCAG 1301 CGGAAACGAT AGCCCCCTCC TTCCCAGAAG CGGGCGGGAT CACCTACAGT 1351 CCACGTTGGC TGGAGCTGAA ACGCTCTGCT GGCAGCAACA AGGACAACGA 1401 TCTGATCGCC TCAGACTTCC GGCGTTTCTG TCGGGAGAGA GGCGTGCGTC 1451 TGGACGCTGC AAACATCGAA AAACTGTTTT TAGATTTCTG CGCAAAGGTA 1501 GGGAAGGTTT GAGTTTTGAG GTATTTCACC GCAATAGTGT TAAATGACTT 1551 TCGTGAAACG ATGTGCAATA TAGCGGTAAG ACTATGAAAT ACACGGCTGG 1601 ACAGGCTGCA AAAGCAACGG GTGTGGCGAC CGCAACCATC ACTCGGGCGC 1651 TAAAAAGCGG TAAAATTTCC GGTAAAAAAG ATGAATCTGG GGCATGGGTT 1701 ATAGATCCTG CAGAATTGCA CAGAGTGTTT CCTCCCATTT CAAAGAAATA 1751 CACCGAAACA CCTAACACGC AAGTATATGG TAAGCGTGAT GAAACACATG 1801 AAATGACCTC AGAAATCAGC GCATTAGAGC GTGAAGTTCG GACTTTACGC 1851 GATGCTTTAT CTGATGCCAG GGAGGATCGC GACAAATGGC GCGACATGGC 1901 CGAGCGTCTT TCAATTTCAT CACCGATGAG AGAGGAAGAC CGCCCCCCTC 1951 AAAAACAAAG ATGGTGGAAG ATATTCTGAT CCTGGGCTTC AGGAGCCTTG

FIGURE 1A

2001 CCTTTACTGG CGGAAAAACG CGATATTGAG GCACAGGCCC GCACTTTAGA 2051 GGCGGAAGCC TATAACGAGT ACCAAAACAC TAGAAGCCAG ATTGAGGAAA

2101 ATAGGGAACG TG

FIGURE 1B

FIGURE 2A

1	TGGTGAACGC	ATTGGCTTGA	TGTTTGAGAA	AAGCGAAAAG	ACCCGGCCAC
51	AGTTGTGGGT	AGAGCGTCGA	TATGTGCAAG	ACCTGATGCT	TGCTGACATC
101	GAACTCCGTG	TCTACCTCGC	ATCGTCGCTG	TATCAGCCTG	CTGCGGATGG
151	CGGAAAGCCC	GCCTATGGTC	GTCACGCAGC	CCTTAAGGCG	ATGCGCGACT
201	TGGCCCATGC	CGATCTGGTG	CGTTTCACCA	TCGGCCGGAT	TACGCAACTG
251	GAGATGATCC	TAGAGCGGTT	AACCGAGACA	${\tt TCTGGTTAAC}$	GCCATAAAGG
301	CTGCGGCATG	AAAATAGGCG	GACAATCTGC	GCTTGGCCGC	CCCCGTTCTC
351	AGCCGTGCTT	GCTCTCTGCC	TGCATGGCAC	GACGCAGGAT	CGCGTTCATA
401	CGGGTCTGAT	ATCCAGACCC	GCCCGCCTTG	AGCCATGCCA	GCACATCGGC
451	ATCAAGCCGC	GCGGTGATCT	GCTGCTTGAT	CGGGCGATAG	AAGCGCCCAC
501	GCTCGGCGTC	TGCCCATTGG	GCTTCGGTCA	GCTCGGGAAC	ATCGTTGGTG
551	TCGATCTGCT	CGGGCGGCAG	AGCGTCCAGC	CGCGCCAATT	TCTTGCGGCG
601	CTCCTCGGTA	AGAGCGGGCA	GCGTATCGAA	GGTGTATTCA	ACCATTGGCA
651	TATCTCTTCC	TTTCCTGCGG	TGTAGCGCGG	CGAGCCGAAA	TGATGCGGAT
701	CGTCTCGACC	GGATCGGGGC	CAGCCTCGAT	GATCAGGTGG	GCAACCAGAA
751	GGACGGCAGC	GCCATAGATC	TGCCCAACGG	TTTGCCAGCG	GTATTCCCCG
801	CCCTCGATCC	TATCCTGAAC	CGTCAGGTGC	AACGGATCGG	CGAACACATG
851	CACAGCATCC	TCGAACCGGA	TGCCATGCTT	CTTTTCGTTC	GTTTCCGCCT
901	TGGCGGGATC	CCAGATAAAC	CGCATCTTCA	TGGCAGAATT	ATAACTACAC
951	ATTTGTAGTT	ATTCAATGGC	AAGTCGCAGG	TTCAAATCAC	GCCCCCAAAC
1001	CGCAACTGTA	TTCGTTCTAC	TCACGCGCGC	TTTTGAATAG	AAGCTTGCAT
1051	GATAACACCC	GCCGCGTCCT	CAACAAAATA	AGGCAAATCC	GCCGCGCTGG
1101	CGCAATCTGC	GCTTTGTCGA	TGCAAGGTCT	TGTGGTTTCA	TACTGCAAGA
1151	GCATGCAAGG	AATTGCCCCG	GATGAGCACC	ACGACGACAC	CCACCAAGCC
1201	GGCCTGGAAC	AAGGGCCGCG	TTGTCGGGAA	AAAGCCGCCG	CTGACACCTG
1251	ACCAGATTGC	CCTGATCCGT	CTCATCCTGC	GCCAGGAACG	GGCGTGGCGG
1301	GATCTGGCTC	TGTTCAACGT	GGCGATCGAC	ACCAGTTTGC	GCGGCTCGGA
1351	CCTCGTGCGC	CTGCGCGTCT	CGGATGTGGC	GACCCCAGCT	GGTCTGCGTG
1401		A GATCCGCCAG			
1451		C GCCTGTCGGA			
1501		r gacaagccgc			
1551		C CCACACCCAC			
1601		C TCGAGAAGGC			
1651		C CGAACCTTCC			
1701		CACAGCTGCTG			
1751		G GCACCGAGCA			
1801		A CCCATGGAGA			
1851		G GTTCTACCGC			
1901		r atcgagaatg			
1951	GCTCGATTG	G TTTGAGAGTG	AACAAGATG0	CATCGCTGCG	ATGCTCGCCA

FIGURE 2B

2001	TCGAGACCGC	CAAGCGTCAG	CGCGGGTATT	GGCTCGAGCC	CATCCAGATT
2051	GACATGTTCC	CAGGGGCATA	ACAGGCCATC	AATGTAAGAG	TGCAAGCGGA
2101	GCAAGCAAAA	GCCATTTCAC	AGTGAGGTGG	CAGATGTTCC	TGTTTCACAG
2151	TGAAAGCGCT	GATGCTGTTT	CCACGCCACA	GACTGATACG	ACCAAAGCAA
2201	CGGGGTCTGC	CGCCACAGAC	CGGTTCGCCG	GCCACCCGCA	GAAACGCAGG
2251	TAAAATGGCG	ATTTCCGCAA	AAAAACCGTG	CAAATGATGG	CAAATCACCA
2301	TCCAGTTTCA	TCCTGAAACC	CGTCGCTCAA	CATGAACGAG	CAGGCCATCA
2351	TCCAAGCCCC	AGAAACGCGG	$\mathtt{TGCGGCGACT}$	ACAGATGAGC	GATGTTCTGG
2401	CTCATAGGCT	GCAAGGCCCT	GCAACAGTGA	TTTCACCGTG	AGATTGCAGG
2451	GTCTTTTGGC	TCTCCCGCAA	GAGCCACCTC	AGGGTGAGCG	AGCTAGCCGT
2501	CTAGGTTCAC	AGTGAAATCG	CTGAGGAGCG	TTGCGGGGCT	TATGGTTTGG
2551	CTGGTCACGT	TGGCCATCGG	AATGGAGCAT	ACGATGGCTT	CTACGCAGTC
2601	GAATCCTGAG	GCTTCACGTG	GGAAAAATAC	GCTCCAAAAA	AGCCCTGACC
2651	AAATCTTGGA	AAAATTGCTT	GAAAAGTTTG	CTTCTAAAAA	ACTGGGAACG
2701	AGATATGCAC	GAGATCCCTT	ACGAGTGCTG	TAGGAGTAAT	GCAGTGGACA
2751	AAAACGCCAT	TTTTTGCCCC	AGTAGGAGTA	ATGGAGTGGT	TATTTTTTGG
2801	GAGATTTTGC	TTCAGTAGGA	GTAACGCGTT	GGTTAAATTT	GCTTGATTGG
2851	CGGTTCAAAT	CGACCACCGA	GCTGCCGTTG	GTCGTATTCG	ATCTGCCCCG
2901	CAATTGGGCA	CTTGCAGGCC	ATCCCCCTGA	ACTTCTGGCG	ATGACCATTT
2951	CGAAGGCAAT	GGGTCGAAAT	TCATAGAATT	TTGTGTGAGG	TGCGTAGCGG
3001	CTCTGACAGG	GGTGCTGCGC	GGAGATCTCT	GGTCTCAGGT	AGGGCGACAA
3051	TGGAGAGGTG	TTAGTTGCCC	CCTGTATCGC	TCTCTGCGTG	GCGCATTGGG
3101	TCATCCTGCC	CGGACATATG	ATATTCCGCT	AGAGGATTAC	TGATAGTTTC
3151	TGCCTGTCGG	GCTTGTCGGG	CTTGTCGGGC	TTGTCGGGCT	TGTCGGGCCT
3201	GTCCCTCTTG	TCCCGCCTGT	CCTCACTTTT	TCACAATCAA	AAAATGGGCG
3251	AAGCCCTTCT	TGTTCTATAG	TTCTTATAGT	TCATACGAAA	ATTACACATA
3301		GCTTATTCGC			
3351	AGTAATTGGG	CCGCAAAAGG	GAGTAATTGG	GCCGCAAAAG	GGAGTAATTG
3401	GGCCGATATC	GGTTGTTTAC	ATGGGGAGGA	ATCCCCTTAA	TCATTTCTCC
3451	CCATGGGAAA	GACAACACAA	GTGGCCGCAG	ACCGGGCCTT	CGACCAGACA
3501	AAAACTGTGC	TCCCTGCCGA	GGTGGCGAGA	GGGGTCTATA	TGCGCAATCC
3551		CAGGCGCTCA			
3601		GGCTGATGAT			
3651		ACGGCATGAA			
3701		CTAGCCGCTG			
3751		AGTCGGCGGC			
3801		GCGGCGAACT			
3851		GCGGCGGAGT			
3901		TCTCGGTAGT			
3951		CCAATCTTGA			
4001		GCGCTCCTTG			
4051	ACGACGTTAA	CAGATTTGCT		CACTGGATGA	GATCAACCAT
		TOTAL	DE 3D		

4101 TTATCGCGTC TGACATTGAC GGCAAAGCCG ACCAAGATTG GCCGTAGCGT 4151 GGCAAGTGTG ACTATAGGCT GGGAAGTGAA AGACGACCCA ACCGTCGCCA 4201 GGCGCGAGCT GGCGGGTTCC AAGGTCGGTC GAGATGCTCG TCGCAGAGGG 4251 GCAGCGGAAA CGATAGCCCC CTCCTTCCCA GAAGCGGGCG GGATCACCTA 4301 CAGTCCACGT TGGCTGGAGC TGAAACGCTC TGCTGGCAGC AACAAGGACA 4351 ACGATCTGAT CGCCTCAGAC TTCCGGCGTT TCTGTCGGGA GAGAGGCGTG 4401 CGTCTGGACG CTGCAAACAT CGAAAAACTG TTTTTAGATT TCTGCGCAAA 4451 GGTAGGGAAG GTTTGAGTTT TGAGGTATTT CACCGCAATA GTGTTAAATG 4501 ACTTTCGTGA AACGATGTGC AATATAGCGG TAAGACTATG AAATACACGG 4551 CTGGACAGGC TGCAAAAGCA ACGGGTGTGG CGACCGCAAC CATCACTCGG 4601 GCGCTAAAAA GCGGTAAAAT TTCCGGTAAA AAAGATGAAT CTGGGGCATG 4651 GGTTATAGAT CCTGCAGAAT TGCACAGAGT GTTTCCTCCC ATTTCAAAGA 4701 AATACACCGA AACACCTAAC ACGCAAGTAT ATGGTAAGCG TGATGAAACA 4751 CATGAAATGA CCTCAGAAAT CAGCGCATTA GAGCGTGAAG TTCGGACTTT 4801 ACGCGATGCT TTATCTGATG CCAGGGAGGA TCGCGACAAA TGGCGCGACA 4851 TGGCCGAGCG TCTTTCAATT TCATCACCGA TGAGAGAGGA AGACCGCCCC 4901 CCTCAAAAAC AAAGATGGTG GAAGATATTC TGATCCTGGG CTTCAGGAGC 4951 CTTGCCTTTA AAACCTGAAT CAGCATTCTA GCGATGCTGA TAAGAAGTAA 5001 ATATAGCCAC AATAGAGCGG CCATTTTCCA TTCACATACA GCTCATCATG 5051 TGATCAATAT CAAGTATTGA TATTCATCAA TGGAGAAGAA TTTACATGTA 5101 TCACAGGATC ATCACAGCAT TTGTTTTTGT ATTTCTAAGT GCTAACATAA 5151 CTATCGCTGG CCCTAAAGAA GATTGTACTA TTGCAGTATC TCACCTTGGG 5201 TTTCAGACCG ATAATTACAG CTTTGTCGAA GCCGGTTTTT TTGCCAGAGA 5251 GAGACACGTT TTTGATGGTG TAATAAACTG CTACGTATCT CATGATGGTA 5301 ACATACACAG CATCATCCGG GGCAACACAC CTCTTATGGA AGATGGATAT 5351 TATGGCCCAG AAGTACTGGC GGAAAAACGC GATATTGAGG CACAGGCCCG 5401 CACTTTAGAG GCGGAAGCCT ATAACGAGTA CCAAAACACT AGAAGCCAGA 5451 TTGAGGAAAA TAGGGAACGT GCCCTCGAGG CGCTGCGGCT AGCTAGCAGT 5501 CCTTTTATTA ATAATGGTAG TACAGAAGAA CAGACAATTA TACAGGCCGC 5551 AACTCCGACG GCAGATCCTG TTGTATCTGT ACCCGTGGCA TCTCCAGAAT 5601 CTAAACAAAG TCGAGAGCCG GAACCGGCTG CTGTTCCAGC ATCAGTTTCT 5651 GTTAGAGAGA TGTGGAGCAC GGCTGACAGA TTGACCACCC GTACATGCCC 5701 ATCGACTCGA TGCGGAGCAA CTAGCTGGGT AACAGATGGA ACTAAAGTAA 5751 CAGTTTATGA AGAAAAAGAC GGTTGGTCTA GAATCGGAGA GCTACAGTCT 5801 GCAATGTGCA TAAATGGAAT AAGTGGCGCG GTCGATTCAG GTGAATCTTC 5851 CTGCAATCCC ACCAATGGTA TCGTTAATGG GCAATTCGCA CCCTGGGTTT 5901 TCTCGGATTA TCTTACGATC CAAGAGCCAG AAGCTCCCAT ATCCACCCAA 5951 GAGTGTCGAA ATATGGGGCT CGAGAACTCA GATAATTACC GTATCTATTC 6001 TAGTCAGTTC TGCACTGCCG CTCTCGAAAT GATCAACGAT AGAGTATGCA 6051 ATACATCTGA TTTCAGAGAT TTAGCTTGGT TATCTTCTCC TGAAAGAGGA 6101 CAGGATTACT ACTTCACCTA TTGTGGCGGA TTTCAACCTC AAAACAGATG 6151 GTATTTGAAT GTCAGGACAG GTGAAATCAC CCGCTGATAT TCCACCAAGG

FIGURE 2D

6201	TGAGTCCTGT	AGATCAGACT	CTCAAGGAGT	AAACGTTTTA	ATCCATCTCC
6251	ATGAGATCAA	CATAGATAGG	TGTTCAGTCC	CGGCATCTGG	TGGATCGGGT
6301	TTAGGATGAA	TCTGTCCGGC	TCTTGACATA	CCCCCGCGTG	AAACCCTGTC
6351	TTTACAAGAG	AAAGTCAGCG	GCCTCGAAGC	CGCTCTAGCC	GATGCCCGGG
6401	CCCAACGGGA	TGAGTAGAGC	GAACAAGCAA	AGCGCCTAGC	${\tt TATGGCTCTG}$
6451	CCCGTCCCGG	AAGCTGCAGC	CGCAGAATCC	GGAAAAAAGA	AAAAATACAT
6501	GGCAGCGATT	ATTTGGATAG	GACACAATCC	TTTTCTATTA	ATATACAACA
6551	AGATATGGGC	ATGCGCCGCG	CGTGATCCTC	ATTCGATACA	ATCCAAATCC
6601	TGAAAGCTGA	CTATGCCCTA	CGCATCGCGC	ACCATCGGTG	CCGTCATTGA
6651	TGACGTGAAC	CGCACCTACC	TGCTGCCCGC	AATCCAACGC	CCCTATGTCT
6701	GGTCTGCCGG	ACAGGTCGTT	GCGCTGTTCG	ACTCTCTGTT	GAAGGGCTAT
6751	CCGATCAGCA	GCTTCATGTT	CTGGGCGGTG	GACGAGGAGA	CCAAGGCAGA
6801	GCTGCGATGC	TACAAATTCA	TCGAGAATTA	TCGGCCCGAA	ATGATGAACG
6851	AGCCGACTAG	TGCGGACGGG	CGGCAGGTCG	TCCTTGTGCT	CGACGGACAG
6901	CAGCGGATGA	CCTCACTGTT	${\tt GATCGGCTTG}$	CGCGGCACAT	${\tt TCTCTGAGAA}$
6951	AGCCAAACAC	GCGCGCAACA	GCAACGCGGC	GGCGTGGTCG	GCAAAAACGC
7001	TATATCTAGA	CCTGCTTCGG	GACCCGGATC	CGAAGAACTC	CGATGAAGAC
7051	GAAGGCAATG	AGTTCGGAAT	CACTTACGGT	CTCTCTTTCC	ATGAACGCCG
7101	CCCGACCAGC	AGCCACAGGC	ACCACTGGTT	CAAGGTGGGA	TCGATACTGG
7151	ATTATCCTAC	AGACGAGCAG	CTGGAGGGGT	TGATTGCCAA	GGTGAAGACC
7201	GAATTTCATC	ATGGTGTATC	GGATTGGGAA	AAGGGGCTGG	CGGAAGACAC
7251	CCTGCGCCGG	TTGCACCGCG	TCATCTGGAA	AGACGAGGGC	ATCAACTTTT
7301	TCACTGAACG	CGACCAGTCG	GTTGATCGGG	TGCTGGACAT	CTTCGTGCGG
7351	GCCAATGACG	GGGGCACGAA	ACTGTCGAAG	GCAGACCTGC	TGATGTCGAT
7401	GATCACGTCA	AAATGGTCCA	GCGGATCGGC	CCGCGAGGAA	ATCGGCGGCT
7451	TTGTCGAGCA	CATAAACAAA	GGTCTCGGTG	CGCCGAACAA	GATCAGTCGC
7501	GATCTGGTCC	TGAAGGCCTG	TCTGGTCGTC	TGCGATTATG	ATGTCGTCTA
7551	TAATGTCAGG	AACTTTACAA	GCGAGGTCAT	CGGCAGGATC	GAAAGCAACT
7601	GGGATCGTAT	CAAGCAGGCA	TTCGAGAACA	CGTTCCGCCT	GCTGAACAGG
7651	CATGGCATCA	CCGGGGATAA	CCTCGGCTCT	TTGAACGCGG	TGCTGCCTCT
7701	GGTCTATTAT	ATCTACAACA	CGCCGGATTT	CGATTTCCGA	GGATCGAGCG
7751			AGCTCCATGC		
7801			TGGCCATTCG		
7851			ACCTGCGTGT		
7901	GAAAGCTGTT	CGATGCCATG	GCGAAGGGGG	GACGGCTATC	TCAGGTGGAT
7951	GAGCGTACCA	TCGAAGAATT	GCTGGAAATG	CAATATGGCA	AGCCCCGGAC
8001			TCTATCAGGG		
8051	CCTGGCATGT	CGATCATATC	ATTCCCCAAG	CGGACGCTCA	GAAAAATGTG
8101	CTGCGCGGGC	GCAATCTGCC	CGAGCATCGC	ATTCAGGAAA	TCTTGGGCGC
8151			TGCAACTTTT		
8201			AGGTCATGGA		
8251	TTCTACGAGC	AGCATATGAT	CCCGGCGCAC	CTTGAACTGT	GCGATGTACT

3301	GCATCTGCCC	GAGTTCGTGC	GCGAACGGGA	AAAGGTGATC	CGGCGCCGTT
3351	TGATGGAGTT	GGTCGGAGCA	CGACGCGCAT	GAATGAGGTC	GTCTTGTCAC
3401	GCGAAGAGCT	GCGTCAATCT	TGTCTCGACC	TGCTTGAAAA	ACGCGCTGTC
3451	GAACACCCTG	CGGGACACCA	AGGCAAGCTC	GCCGCCCGCT	ATGTTGTGC
0501	CCCCCAACCA				

FIGURE 2E

SEQ ID NO:3

FIGURE 3A

1	$\mathtt{TCGCGCGTTT}$	CGGTGATGAC	GGTGAAAACC	TCTGACACAT	GCAGCTCCCG
51	GAGACGGTCA	CAGCTTGTCT	GTAAGCGGAT	GCCGGGAGCA	GACAAGCCCG
101	TCAGGGCGCG	TCAGCGGGTG	TTGGCGGGTG	${\tt TCGGGGCTGG}$	CTTAACTATG
151	CGGCATCAGA	GCAGATTGTA	CTGAGAGTGC	ACCATATGCG	GTGTGAAATA
201	CCGCACAGAT	GCGTAAGGAG	AAAATACCGC	ATCAGGCGCC	ATTCGCCATT
251	CAGGCTGCGC	AACTGTTGGG	AAGGGCGATC	GGTGCGGGCC	TCTTCGCTAT
301	TACGCCAGCT	GGCGAAAGGG	GGATGTGCTG	CAAGGCGATT	AAGTTGGGTA
351	ACGCCAGGGT	TTTCCCAGTC	ACGACGTTGT	AAAACGACGG	CCAGTGAATT
401	CGGCAATGGG	TCGAAATTCA	TAGAATTTTG	TGTGAGGTGC	GTAGCGGCTC
451	TGACAGGGGT	GCTGCGCGGA	GATCTCTGGT	CTCAGGTAGG	GCGACAATGG
501	AGAGGTGTTA	GTTGCCCCCT	GTATCGCTCT	CTGCGTGGCG	CATTGGGTCA
551	TCCTGCCCGG	ACATATGATA	TTCCGCTAGA	$\operatorname{GGATTACTGA}$	TAGTTTCTGC
601	CTGTCGGGCT	TGTCGGGCTT	GTCGGGCTTG	TCGGGCTTGT	CGGGCCTGTC
651	CCTCTTGTCC	CGCCTGTCCT	CACTTTTTCA	CAATCAAAAA	ATGGGCGAAG
701	CCCTTCTTGT	TCTATAGTTC	TTATAGTTCA	TACGAAAATT	ACACATAATT
751	ATCAATAGCT	TATTCGCTTA	AAAGGGAGTA	ATTGGGCCGC	AAAAGGGAGT
801	AATTGGGCCG	CAAAAGGGAG	TAATTGGGCC	GCAAAAGGGA	GTAATTGGGC
851	CGATATCGGT	TGTTTACATG	GGGAGGAATC	CCCTTAATCA	TTTCTCCCCA
901	TGGGAAAGAC	AACACAAGTG	GCCGCAGACC	${\tt GGGCCTTCGA}$	CCAGACAAAA
951	ACTGTGCTCC	CTGCCGAGGT	GGCGAGAGGG	GTCTATATGC	GCAATCCGCC
1001	CCGCCTGCAG	GCGCTCAAGC	TCATGCATTT	AATGATAGCC	ACTGCGGGCG
1051	GCCGCATGGC	TGATGATGTG	CGCCATGAAA	${\tt TGCGGCTGGC}$	CGACATTCGC
1101	GCAATCGACG	GCATGAAAAA	CCATGACCGT	GAGAGCCTGA	CCCCGCTGTT
1151	CGAGGAGCTA	GCCGCTGCGG	TGTTGACCCA	TGATGACCCT	GCAAAGATGA
1201	TCGTGACAGT	CGGCGGCTTG	GTCGATGAGG	CGCGAATAGA	CTACCGCCAG
1251	GAGGCAAGCG	GCGAACTCCT	AGTGACGTGG	ACCTTCCGGA	GTACATTCCG
1301	TCGTATGGCG	GCGGAGTCGA	ACCACTGGGC	CATTCTCGAC	CGTCAAACGG
1351	TATTCCATCT	CGGTAGTAAG	TATTCCGTGC	TGCTGTTCCA	GCACGTCTCT
1401	AGTCTCGCCA	ATCTTGATCG	GATGAGCGCG	AAAACCTTTA	CGGTCCCCGA
1451	GTTGCGGGCG	CTCCTTGGAG	TGCCCGAGGG	AAAGATGGTT	CGTTGGAACG
1501	ACGTTAACAG	ATTTGCTCTC	AAACCTGCAC	TGGATGAGAT	CAACCATTTA
1551	TCGCGTCTGA	CATTGACGGC	AAAGCCGACC	AAGATTGGCC	GTAGCGTGGC
1601	AAGTGTGACT	ATAGGCTGGG	AAGTGAAAGA	CGACCCAACC	GTCGCCAGGC
1651	GCGAGCTGGC	GGGTTCCAAG	GTCGGTCGAG	ATGCTCGTCG	CAGAGGGGCA
1701	GCGGAAACGA	TAGCCCCCTC	CTTCCCAGAA	GCGGGCGGGA	TCACCTACAG
1751	TCCACGTTGG	CTGGAGCTGA	AACGCTCTGC	TGGCAGCAAC	AAGGACAACG
1801	ATCTGATCGC	CTCAGACTTC	CGGCGTTTCT	GTCGGGAGAG	AGGCGTGCGT
1851	CTGGACGCTG	CAAACATCGA	AAAACTGTTT	TTAGATTTCT	GCGCAAAGGT
1901	AGGGAAGGTT	TGAGTTTTGA	GGTATTTCAC	CGCAATAGTG	TTAAATGACT
1951	TTCGTGAAAC	GATGTGCAAT	ATAGCGGTAA	GACTATGAAA	TACACGGCTG

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2151	ACACCGAAAC	ACCTAACACG	CAAGTATATG	GTAAGCGTGA	TGAAACACAT
2201	GAAATGACCT	CAGAAATCAG	CGCATTAGAG	CGTGAAGTTC	GGACTTTACG
2251	CGATGCTTTA	TCTGATGCCA	GGGAGGATCG	CGACAAATGG	CGCGACATGG
2301	CCGAGCGTCT	TTCAATTTCA	TCACCGATGA	GAGAGGAAGA	CCGCCCCCT
2351	CAAAAACAAA	GATGGTGGAA	GATATTCTGA	TCCTGGGCTT	CAGGAGCCTT
2401	GCCTTTACTG	GCGGAAAAAC	GCGATATTGA	GGCACAGGCC	CGCACTTTAG
2451	AGGCGGAAGC	CTATAACGAG	TACCAAAACA	CTAGAAGCCA	GATTGAGGAA
2501	AATAGGGAAC	GTGGGATCCT	CTAGAGTCGA	CCTGCAGGCA	TGCAAGCTTG
2551	GCGTAATCAT	GGTCATAGCT	${\tt GTTTCCTGTG}$	TGAAATTGTT	ATCCGCTCAC
2601	AATTCCACAC	AACATACGAG	CCGGAAGCAT	AAAGTGTAAA	GCCTGGGGTG
2651	CCTAATGAGT	GAGCTAACTC	ACATTAATTG	CGTTGCGCTC	ACTGCCCGCT
2701	TTCCAGTCGG	GAAACCTGTC	GTGCCAGCTG	CATTAATGAA	TCGGCCAACG
2751	CGCGGGGAGA	GGCGGTTTGC	GTATTGGGCG	CTCTTCCGCG	CTCGGTCTTG
2801	CCTTGCTCGT	CGGTGATGTA	CTTCACCAGC	TCCGCGAAGT	CGCTCTTCTT
2851	GATGGAGCGC	ATGGGGACGT	GCTTGGCAAT	CACGCGCACC	CCCCGGCCGT
2901	TTTAGCGGCT	AAAAAAGTCA	TGGCTCTGCC	CTCGGGCGGA	CCACGCCCAT
2951	CATGACCTTG	CCAAGCTCGT	CCTGCTTCTC	${\tt TTCGATCTTC}$	GCCAGCAGGG
3001	CGAGGATCGT	GGCATCACCG	AACCGCGCCG	${\tt TGCGCGGGTC}$	GTCGGTGAGC
3051	CAGAGTTTCA	GCAGGCCGCC	CAGGCGGCCC	AGGTCGCCAT	TGATGCGGGC
3101	CAGCTCGCGG	ACGTGCTCAT	AGTCCACGAC	GCCCGTGATT	TTGTAGCCCT
3151	GGCCGACGGC	CAGCAGGTAG	GCCGACAGGC	TCATGCCGGC	CGCCGCCGCC
3201	TTTTCCTCAA	TCGCTCTTCG	TTCGTCTGGA	AGGCAGTACA	CCTTGATAGG
3251	TGGGCTGCCC	TTCCTGGTTG	GCTTGGTTTC	ATCAGCCATC	CGCTTGCCCT
3301	CATCTGTTAC	GCCGGCGGTA	GCCGGCCAGC	CTCGCAGAGC	AGGATTCCCG
3351	TTGAGCACCG	CCAGGTGCGA	ATAAGGGACA	GTGAAGAAGG	AACACCCGCT
3401	CGCGGGTGGG	CCTACTTCAC	CTATCCTGCC	CGGCTGACGC	CGTTGGATAC
3451	ACCAAGGAAA	GTCTACACGA	ACCCTTTGGC	AAAATCCTGT	ATATCGTGCG
3501	AAAAAGGATG	GATATACCGA	AAAAATCGCT	ATAATGACCC	CGAAGCAGGG
3551	TTATGCAGCG	GAAAAGCTTC	CTCGCTCACT	GACTCGCTGC	GCTCGGTCGT
3601	TCGGCTGCGG	CGAGCGGTAT	CAGCTCACTC	AAAGGCGGTA	ATACGGTTAT
3651		AGGGGATAAC			
3701		GGAACCGTAA			
3751		CCTGACGAGC			
3801		GACAGGACTA			
3851	TCCCTCGTGC	GCTCTCCTGT	TCCGACCCTG	CCGCTTACCG	GATACCTGTC
3901		CCTTCGGGAA			
3951		TTCGGTGTAG			
4001		TTCAGCCCGA			
4051	TGAGTCCAAC	CCGGTAAGAC	ACGACTTATC	GCCACTGGCA	GCAGCCACTG
		FIGU:	RE 3B		

2001 GACAGGCTGC AAAAGCAACG GGTGTGGCGA CCGCAACCAT CACTCGGGCG 2051 CTAAAAAGCG GTAAAATTTC CGGTAAAAAA GATGAATCTG GGGCATGGGT 2101 TATAGATCCT GCAGAATTGC ACAGAGTGTT TCCTCCCATT TCAAAGAAAT 4101 GTAACAGGAT TAGCAGAGCG AGGTATGTAG GCGGTGCTAC AGAGTTCTTG 4151 AAGTGGTGGC CTAACTACGG CTACACTAGA AGGACAGTAT TTGGTATCTG 4201 CGCTCTGCTG AAGCCAGTTA CCTTCGGAAA AAGAGTTGGT AGCTCTTGAT 4251 CCGGCAAACA AACCACCGCT GGTAGCGGTG GTTTTTTTGT TTGCAAGCAG 4301 CAGATTACGC GCAGAAAAAA AGGATCTCAA GAAGATCCTT TGATCTTTTC 4351 TACGGGGTCT GACGCTCAGT GGAACGAAAA CTCACGTTAA GGGATTTTGG 4451 GGCGCTGAGG TCTGCCTCGT GAAGAAGGTG TTGCTGACTC ATACCAGGCC 4501 TGAATCGCCC CATCATCCAG CCAGAAAGTG AGGGAGCCAC GGTTGATGAG 4551 AGCTTTGTTG TAGGTGGACC AGTTGGTGAT TTTGAACTTT TGCTTTGCCA 4651 GCAAAAGTTC GATTTATTCA ACAAAGCCGC CGTCCCGTCA AGTCAGCGTA 4701 ATGCTCTGCC AGTGTTACAA CCAATTAACC AATTCTGATT AGAAAAACTC 4751 ATCGAGCATC AAATGAAACT GCAATTTATT CATATCAGGA TTATCAATAC 4801 CATATTTTG AAAAAGCCGT TTCTGTAATG AAGGAGAAAA CTCACCGAGG 4851 CAGTTCCATA GGATGGCAAG ATCCTGGTAT CGGTCTGCGA TTCCGACTCG 4901 TCCAACATCA ATACAACCTA TTAATTTCCC CTCGTCAAAA ATAAGGTTAT 4951 CAAGTGAGAA ATCACCATGA GTGACGACTG AATCCGGTGA GAATGGCAAA 5001 AGCTTATGCA TTTCTTTCCA GACTTGTTCA ACAGGCCAGC CATTACGCTC 5051 GTCATCAAAA TCACTCGCAT CAACCAAACC GTTATTCATT CGTGATTGCG 5101 CCTGAGCGAG ACGAAATACG CGATCGCTGT TAAAAGGACA ATTACAAACA 5151 GGAATCGAAT GCAACCGGCG CAGGAACACT GCCAGCGCAT CAACAATATT 5201 TTCACCTGAA TCAGGATATT CTTCTAATAC CTGGAATGCT GTTTTCCCGG 5251 GGATCGCAGT GGTGAGTAAC CATGCATCAT CAGGAGTACG GATAAAATGC 5301 TTGATGGTCG GAAGAGGCAT AAATTCCGTC AGCCAGTTTA GTCTGACCAT 5351 CTCATCTGTA ACATCATTGG CAACGCTACC TTTGCCATGT TTCAGAAACA 5401 ACTCTGGGGC ATCGGGCTTC CCATACAATC GATAGATTGT CGCACCTGAT 5451 TGCCCGACAT TATCGCGAGC CCATTTATAC CCATATAAAT CAGCATCCAT 5501 GTTGGAATTT AATCGCGGCC TCGAGCAAGA CGTTTCCCGT TGAATATGGC 5551 TCATACCC CCTTGTATTA CTGTTTATGT AAGCAGACAG TTTTATTGTT 5601 CATGATGATA TATTTTTATC TTGTGCAATG TAACATCAGA GATTTTGAGA 5651 CACAACGTGG CTTTCCCCCC CCCCCATTA TTGAAGCATT TATCAGGGTT 5701 ATTGTCTCAT GAGCGGATAC ATATTTGAAT GTATTTAGAA AAATAAACAA 5751 ATAGGGGTTC CGCGCACATT TCCCCGAAAA GTGCCACCTG ACGTCTAAGA 5801 AACCATTATT ATCATGACAT TAACCTATAA AAATAGGCGT ATCACGAGGC

FIGURE 3C

5851 CCTTTCGTC

GGCAATGGGT CGAAATTCAT AGAATTTTGT GTGAGGTGCG TAGCGGCTCT 51 GACAGGGTG CTGCGCGGAG ATCTCTGGTC TCAGGTAGGG CGACAATGGA 101 GAGGTGTTAG TTGCCCCCTG TATCGCTCTC TGCGTGGCGC ATTGGGTCAT 151 CCTGCCGGA CATATGATAT TCCGCTAGAG GATTACTGAT AGTTTCTGCC 201 TGTCGGGCTT GTCGGGCTTG TCGGGCTTGT CGGGCTTGTC GGGCCTGTCC 251 CTCTTGTCCC GCCTGTCCTC ACTTTTCAC AATCAAAAA TGGGCGAAGC 301 CCTTCTTGTT CTATAGTTCT TATAGTTCAT ACGAAAATTA CACATAATTA TCAATAGCTT ATTCGCTTAA AAGGGAGTAA TTGGGCCGCA AAAGGGAGTA 401 ATTGGGCCGC AAAAGGGAGT AATTGGGCCG CAAAAGGGAG TAATTGGGCC 451 GATATCGGTT GTTTACATGG GGAGGAATCC CCTTAATCAT TTCTCCCCAT 501 GGGAAGACA ACACAAGTGG CCGCAGACCG GGCCTTCGAC CAGACAAAA 551 CTGTGCTCCC TGCCGAGGTG GCGAGAGGGG TCTATATGCG CAATCCGCCC 601 CGCCTGCAGG CGCTCAAGCT CATGCATTTA ATGATAGCCA CTGCGGGCGG 651 CCGCATGGCT GATGATGTGC GCCATGAAAT GCGGCTGGCC GACATTCGCG 701 CAATCGACGG CATGAAAAAC CATGACCGTG AGAGCCTGAC CCCGCTGTTC 751 GAGGAGCTAG CCGCTGCGGT GTTGACCCAT GATGACCCTG CAAAGATGAT 801 CGTGACAGTC GGCGGCTTGG TCGATGAGGC GCGAATAGAC TACCGCCAGG 851 AGGCAAGCGG CGAACTCCTA GTGACGTGGA CCTTCCGGAG TACATTCCGT 901 CGTATGGCGG CGGAGTCGAA CCACTGGGCC ATTCTCGACC GTCAAACGGT 951 ATTCCATCTC GGTAGTAAGT ATTCCGTGCT GCTGTTCCAG CACGTCTCTA 1001 GTCTCGCCAA TCTTGATCGG ATGAGCGCGA AAACCTTTAC GGTCCCCGAG 1051 TTGCGGGCGC TCCTTGGAGT GCCCGAGGGA AAGATGGTTC GTTGGAACGA 1101 CGTTAACAGA TTTGCTCTCA AACCTGCACT GGATGAGATC AACCATTTAT 1151 CGCGTCTGAC ATTGACGGCA AAGCCGACCA AGATTGGCCG TAGCGTGGCA AGTGTGACTA TAGGCTGGGA AGTGAAAGAC GACCCAACCG TCGCCAGGCG 1201 1251 CGAGCTGGCG GGTTCCAAGG TCGGTCGAGA TGCTCGTCGC AGAGGGGCAG 1301 CGGAAACGAT AGCCCCCTCC TTCCCAGAAG CGGGCGGGAT CACCTACAGT 1351 CCACGTTGGC TGGAGCTGAA ACGCTCTGCT GGCAGCAACA AGGACAACGA 1401 TCTGATCGCC TCAGACTTCC GGCGTTTCTG TCGGGAGAGA GGCGTGCGTC 1451 TGGACGCTGC AAACATCGAA AAACTGTTTT TAGATTTCTG CGCAAAGGTA GGGAAGGTTT GAGTTTTGAG GTATTTCACC GCAATAGTGT TAAATGACTT 1551 TCGTGAAACG ATGTGCAATA TAGCGGTAAG ACTATGAAAT ACACGGCTGG 1601 ACAGGCTGCA AAAGCAACGG GTGTGGCGAC CGCAACCATC ACTCGGGCGC 1651 TAAAAAGCGG TAAAATTTCC GGTAAAAAAG ATGAATCTGG GGCATGGGTT 1701 ATAGATCCTG CAGAATTGCA CAGAGTGTTT CCTCCCATTT CAAAGAAATA 1751 CACCGAAACA CCTAACACGC AAGTATATGG TAAGCGTGAT GAAACACATG 1801 AAATGACCTC AGAAATCAGC GCATTAGAGC GTGAAGTTCG GACTTTACGC 1851 GATGCTTTAT CTGATGCCAG GGAGGATCGC GACAAATGGC GCGACATGGC 1901 CGAGCGTCTT TCAATTTCAT CACCGATGAG AGAGGAAGAC CGCCCCCTC 1951 AAAACAAG ATGGTGGAAG ATATTCTGAT CCTGGGCTTC AGGAGCCTTG

2001	CCTTTAAAAC	CTGAATCAGC	ATTCTAGCGA	TGCTGATAAG	AAGTAAATAT
2051	AGCCACAATA	GAGCGGCCAT	TTTCCATTCA	CATACAGCTC	ATCATGTGAT
2101	CAATATCAAG	TATTGATATT	CATCAATGGA	GAAGAATTTA	CATGTATCAC
2151	AGGATCATCA	CAGCATTTGT	TTTTGTATTT	CTAAGTGCTA	ACATAACTAT
2201	CGCTGGCCCT	AAAGAAGATT	${\tt GTACTATTGC}$	AGTATCTCAC	CTTGGGTTTC
2251	AGACCGATAA	TTACAGCTTT	GTCGAAGCCG	$\tt GTTTTTTGC$	CAGAGAGAGA
2301	CACGTTTTTG	ATGGTGTAAT	AAACTGCTAC	GTATCTCATG	ATGGTAACAT
2351	ACACAGCATC	ATCCGGGGCA	ACACACCTCT	TATGGAAGAT	GGATATTATG
2401	GCCCAGAAGT	ACTGGCGGAA	AAACGCGATA	TTGAGGCACA	GGCCCGCACT
2451	TTAGAGGCGG	AAGCCTATAA	CGAGTACCAA	AACACTAGAA	GCCAGATTGA
2501	GGAAAATAGG	GAACGTG			

FIGURE 4B